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IN THE

Supreme Court of the United States

MICHAEL ROBAK, JR., CLERK

October Term, 1972

No. 72-294

L. GOLDSTEIN'S SONS, INC.,
Petitioner

v.

TRIO PROCESS CORPORATION,
Respondent

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE THIRD CIRCUIT

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IN THE

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October Term, 1972

No. ———

L. Goldstein's, Inc., *Petitioner*

v.

Trio Process Corporation, *Respondent*

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE THIRD CIRCUIT

L. Goldstein's, Inc. petitions for a writ of certiorari to review the judgment of the United States Court of Appeals for the Third Circuit entered in the above case on May 22, 1972.

A. OPINIONS BELOW

The opinion of the Court of Appeals [App. 15a][1] is reported at 174 USPQ 139. The opinion of the United States District Court for the Eastern District of Pennsylvania [App. 1a] is reported at—F.Supp.—(1971).

B. JURISDICTION

The judgment of the Court of Appelas [App. 30a] was entered on May 22, 1972. A timely petition for rehearing was denied on July 5, 1972 [App. 31a]. The jurisdiction of this Court is invoked under 28 U.S.C. 1254(1).

1. References to the appendix pages of this Petition are designated "App.".

C. QUESTIONS INVOLVED

Respondent's assignor devised a method and apparatus for burning off the insulation from scrap copper wire of which petitioner became aware. Upon consulting its patent counsel petitioner was advised that the invention was not patentable.

Meanwhile, the inventor had filed a patent application and unsuccessfully presented successively narrower versions of the original claims to the Patent Office. In the third amendment, the inventor sought to change the wording of the main method claims so as to make them also applicable to *petitioner's* process. The Patent Office rejected this attempt to broaden the scope of the invention as set forth in the original disclosure because it had no antecedent or basis in the application originally filed. In reply, the inventor, *without any argument*, amended these method claims to restore their original, more restricted wording. The Patent Office then allowed these narrowed claims.

After the patent issued the respondent sued petitioner alleging that petitioner's process infringed the patent assigned to it. Petitioner, however, used the very inverted sequence of process steps which the patentee had unsuccessfully tried to claim when his patent was pending. The Court of Appeals held that respondent was *not* estopped by the Patent Office record* from asserting that those narrowed claims did cover petitioner's process since those claims were *not* narrowed in response to *prior art* rejections.

Whereas the District Court had held the patent invalid because of prior art not known or considered by the Patent Office, the Court of Appeals reversed saying that the District Court misapplied the law.

The Court of Appeals sustained the District Court's finding of willful infringement despite petitioner's having received an opinion of prospective patent invalidity from

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*This is known as "file wrapper estoppel" *Exhibit Supply Co. v. Ace Products Corp.*, 315 U.S. 126; 52 USPQ 275 (1942).

its patent attorney. The District Court based its finding of willfulness, in part, on conduct of the petitioner adjudicated legal in *Deepsouth Packing Co., Inc. v. The Laitram Corporation*, 40 U.S. Law Week 4575 (May 30, 1972). Therefore the questions presented are:

I. Was it proper to find petitioner guilty of infringement based on a broadened interpretation of the claims of respondent's patent when the Patent Office had refused to permit the patentee to correspondingly broaden the patent claims before it issued?

The resolution of this question necessarily involves a consideration of the question of the correctness of the limitation of the doctrine of file wrapper estoppel solely to cases where patent claims are restricted in scope because of Patent Office rejections based on prior art. This question has hopelessly divided the various Courts of Appeal in the last 10 years.

II. Did the Court of Appeals accord the patent in issue undue presumptive validity under 35 U.S.C. 282 and apply the proper evidentiary test ("Clear and convincing" proof) in the light of the Supreme Court's own pronouncement in *Graham v. John Deere Company*, 383 U.S. 1 (1966)?

III. Did the Court of Appeals err in applying the correct test for determining the patentability of an invention involving a combination of known process steps as set forth in *Anderson's Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57 (1969)?

IV. If a patentee consciously conceals certain facts and misrepresents others contrary to the requirements of 35 U.S.C. 112, can his patent be invalidated even if those facts do *not* relate to utility (35 U.S.C. 101), novelty (35 U.S.C. 102) or obviousness (35 U.S.C. 103)?

V. Can acts specifically held legal by this Court* be used to justify the invocation of the exceptional penal provisions of 35 U.S.C. 284 relating to willful infringement?

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* *Deepsouth Packing Co., supra.*

D. STATUTES AND REGULATIONS INVOLVED

35 *U.S.C. 101*. Inventions Patentable.

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

35 *U.S.C. 102*. Conditions for Patentability; Novelty and Loss of Right to Patent.

A person shall be entitled to a patent unless—

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or

* * *

35 *U.S.C. 103*. Conditions for Patentability; Non-Obvious Subject Matter.

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

35 *U.S.C. 112*. Specification.

The specification shall contain a written description of the invention, and of the manner and process of making

and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention. A claim may be written in independent or dependent form, and if in dependent form, it shall be construed to include all the limitations of the claim incorporated by reference into the dependent claim.

* * *

35 *U.S.C. 132.* Notice of Rejection; Reexamination.

Whenever, on examination, any claim for a patent is rejected, or any objection or requirement made, the Commissioner shall notify the applicant thereof, stating the reasons for such rejection, or objection or requirement, together with such information and references as may be useful in judging of the propriety of continuing the prosecution of his application; and if after receiving such notice, the applicant persists in his claim for a patent, with or without amendment, the application shall be reexamined. *No amendment shall introduce new matter into the disclosure of the invention.* [Emphasis added]

35 *U.S.C.* 282. Presumption of Validity; Defenses.

A patent shall be presumed valid. Each claim of a patent (whether in independent or dependent form) shall be presumed valid independently of the validity of other claims; dependent claims shall be presumed valid even though dependent upon an invalid claim. The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting it.

The following shall be defenses in any action involving the validity or infringement of a patent and shall be pleaded:

(1) Noninfringement, absence of liability for infringement, or unenforceability.

* * *

35 *U.S.C.* 284. Damages.

Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court.

When the damages are not found by a jury, the court shall assess them. In either event the court may increase the damages up to three times the amount found or assessed.

* * *

35 *U.S.C.* 285. Attorney Fees.

The court in exceptional cases may award reasonable attorney fees to the prevailing party.

Rule 75 of the U.S. Patent Office. Claim(s).

(a) The specification must conclude with a claim particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention or discovery.

* * *

(d)(1) The claim or claims must conform to the invention as set forth in the remainder of the specification and the *terms and phrases used in the claims must find clear support or antecedent basis in the description* so that the meaning of the terms in the claims may be ascertainable by reference to the description. [Emphasis added]

* * *

E. STATEMENT OF THE CASE

Respondent sued petitioner alleging infringement of respondent's U.S. Patent 3,076,421, unfair competition and violation of 15 U.S.C. Sec. 2. This patent contained three claims which relate to a method of burning off the insulation and other organic material surrounding metallic wire scrap, ostensibly without oxidizing or embrittling the wire content. The petitioner answered with defenses of patent invalidity and non-infringement.

In the trial of the action, it was brought out that patentee had originally presented one method claim and four claims addressed to a portable incinerator, but that these had all been rejected as being too broad in view of prior art. In the two and one half years following the filing date of the patent application, the patentee presented eight additional claims, all of which had also been rejected by the Patent Office.

The patent application as filed covered a process whose principal steps were as follows:

1. Igniting a pile of scrap wire.
2. Superimposing an incinerator over the ignited pile.
3. Limiting the air input to the ignited pile to keep its temperature low so as not to melt the wire.
4. Passing the products of this low temperature combustion (smoke and gases) to a much higher temperature afterburner to oxidize those combustion products.

During the pendency of the application, 50% more textual descriptive material was added to provide support for the added claims, which included proposed claims 14-17. As presented by patentee's third amendment,* these claims 14-17 were so worded as to cover both the *disclosed* method

*No claim had been allowed to this date, Sept. 8, 1960, which was two years after the application had been filed.

summarized above and also a method in which steps 1 and 2 were reversed. As a matter of fact, this inverted order had been developed by the petitioner who found it was far superior to the order of steps disclosed by the patentee. By lighting the scrap pile after the incinerator had *already* been superimposed, there was not a great rush of air into the pile which would cause unwanted smoke to initially appear in the output of the incinerator so as to pollute the environment. When the Patent Examiner examined proposed claims 14-17 he detected this transparent attempt to broaden the scope of the invention. He thereupon rejected them as not having "antecedent basis in the description." The Examiner cited Rule 75(d)(1) and had apparently concluded that the patentee was attempting to circumvent the provisions of 35 U.S.C. 132 which states, in part:

> "* * * No amendment shall introduce new matter into the disclosure of the invention.* * *"

35 U.S.C. 112 further provides that the claims shall particularly point out and distinctly claim the subject matter which the applicant regards as his invention. In response to this rejection, the patentee took an appeal on October 2, 1961. At the same time, he filed a proposed amendment to claims 14-17 which *restored* the original order of steps 1 and 2 of the process summarized above. [App. 4a] In that amendment he did *not* traverse the Examiner's rejection of the claims 14-17 in their original form. After a further interview with the Examiner, and further changes to claims 14-17, the patentee dropped his appeal. He was thereupon granted claims 14-17 revised to recite the *original* order of steps 1 and 2.

In the action brought by respondent against petitioner, the trial court specifically found that the patent covered the *original* order of steps 1 and 2 (above) whereas petitioner's process, to the contrary, used the *inverted* order which the inventor unsuccessfully sought to cover by his proposed claims 14-17 [App. 10a]. Nevertheless, the

courts below did *not* say that the patentee was estopped by the proceedings in the Patent Office (file wrapper estoppel) from reasserting that his claims *also* covered the inverted order actually practiced by petitioner.

Although the trial court had found the patent invalid because of a number of technical articles which were not considered or known to the Patent Office, the Court of Appeals nevertheless reversed, applying the test of "clear and convincing proof" as the standard necessary to overturn the Patent Office grant.

The Court of Appeals ignored the prior art installation of American Smelting and Refining Company [App. 2a] and gave scant attention to the additional patents and literature references cited by petitioner [App. 5a, Findings of Fact 23-28] finding them to be "merely cumulative to the references before the Examiner." [App. 24a] The opinion of the Court erroneously stated that the chief point of novelty in respondent's process was the fact that organically-coated metal was burned at low temperature [App. 17a, 24a].

The Court of Appeals also held petitioner to be a willful infringer since it had only sought the advice of patent counsel* *before* the patent issued, not after. The Court also seemed to say [App. 30a] that when petitioner sent blueprints of the unpatented incinerator and operating instructions for it to a foreign country where respondent had no patent rights, this was somehow reprehensible even though such acts are specifically stated not to be violative of any law by the decision of the Supreme Court in *Deepsouth Packing Company, supra.*

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* Patent counsel is a well-known attorney and patent law authority who has published a number of treatises and articles which have been cited in at least two cases before the U.S. Supreme Court and in several other Federal cases.

F. REASONS FOR GRANTING THE WRIT

1. There is a split of authority among the various circuits as to whether a patentee may assert against an infringer a broadened interpretation of patent claims which have been narrowed in response a rejection by the patent office on grounds *other* than prior art.

In the opinion of the Court of Appeals below [App. 29a], the Court acknowledged that respondent's earliest versions of proposed method claims 14-17 attemped to invert the order of steps 1 and 2 of the patented process, but had to be amended (narrowed) to gain the grant of the patent. The Court states [App. 29a] that respondent *could* recapture the attempted broadened scope of proposed claims 14-17 because the patentee had not surrendered the broader scope in response to a rejection by the Patent Office on prior art, citing *Bishman Mfg. Co. v. Stuart-Warner Corp.*, 380 F.2d 336 (C.A. 7), *Cert. denied*, 389 US 897 (1967); 153 USPQ 496. However, that decision in the Court of Appeals for the Seventh Circuit nowhere states that for file wrapper estoppel to apply it is necessary, at the least, that a claim have been narrowed to avoid the prior art.

As a matter of fact, the *Bishman* case did *not* overrule or in anyway attempt to distinguish from the earlier Seventh Circuit case of *Powder Power Tool Corp. v. Powder Actuated Tool Co.*, 230 F.2d 409; 108 USPQ 155 (C.A. 7 1956). In the latter case, during the pendency of the application in the U.S. Patent Office, the Patent Office rejected claims 18-20 as being "aggregative and indefinite," *not* because of any prior patent or art. In response to this rejection the applicant cancelled them and substituted two other narrower claims which were finally allowed by the Patent Office. The patentee then sued an alleged infringer and

sought to extend the scope of these allowed claims to cover the alleged infringing article. In finding for the alleged infringer, the Court *did* apply the doctrine of "file wrapper estoppel."

The decision of the Court below seems to be the first definitive holding in the Third Circuit that the doctrine of file wrapper estoppel is limited *solely* to cases where claims were modified because of cited prior art.

a. Circuits in accord with the Third Circuit.

The Eighth and Tenth Circuits appear to be in accord with the Third Circuit. *Matherson-Selig Co. v. Carl Gorr Color Guard, Inc.*, 154 USPQ 265 (D.C. Ill. 1966)*; *McCullough Tool Co. v. Well Surveys, Inc.*, 343 F.2d 381; 145 USPQ 6 (C.A. 10 1965).** In the Second Circuit in the case of *Lemelson v. DeLuxe Reading Corp.*, 321 F.Supp. 1281; 168 USPQ 636 (D.C.S.N.Y., 1970), the holding is not clear since the original claims were rejected on *two* grounds (1) inadequate disclosure and (2) prior art patents. When the patentee narrowed them, got his patent, and then sued for infringement of these narrowed claims, he contended that their scope nonetheless included previously cancelled features. The Court invoked the doctrine of file wrapper estoppel and refused to allow this broadened interpretation. Certainly this holding does not unequivocal-

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* The Court's authorities in that case are the *Exhibit Supply case, supra*, the *Graham v. Deere case, supra*, and two Seventh Circuit cases, none of which specifically hold that file wrapper estoppel applies *only* in case of prior art rejections. As a matter of fact, the Seventh Circuit, as will be seen below, holds to the contrary.

** However, in the *Norwood* case, infra, the Court of Appeals of the Tenth Circuit held the estoppel doctrine applicable where the patentee restricted his claims in response to a rejection on "double patenting" (i.e., because it covered the same invention as another one of his patents) rather than to a rejection based on prior art.

ly declare that file wrapper estoppel applies *only* in cases where claim limitations are inserted in response to *prior art* rejections.

b. Circuits holding contra the Third Circuit.

It would be well to examine cases in which numerous Courts of Appeal have held file wrapper estoppel applicable in cases *other than* those in which the applicant has limited his claims in response to rejections based upon *prior art*.

The **First Circuit** has stated that it does not really matter whether the limitations are inserted because of prior art rejections or because the Patent Office insists on claim changes to conform to the description in the patent application. The test, the Court said, is to find out exactly what, if anything, the patentee surrendered when he limited his claim. The Court said:

> "We think of no reason, and find none suggested in the cases, why the importance and materiality of language in a claim depend upon the particular objection the Patent Office had voiced. *A patent may be just as invalid because the description is inadequate* as it may be because of the prior art.*** If an applicant who accedes to a demand based on the prior art is thereafter estopped to contest its necessity, *he should equally be estopped to deny the correctness of a demand for which some other reason is given* [emphasis added].*** " *Borg Warner Corp. v. Paragon Gear Works, Inc.*, 355 F.2d 400; 148 USPQ 1 (C.A. 1, 1966).

In the **Fourth Circuit** in the case of *Power Curbers, Inc. v. E. D. Etnyre & Co.*, 298 F.2d 484; 132 USPQ 158 (C.A. 4, 1962). In that case, the Patent Office had rejected a number of the patentee's original claims for indefiniteness or prior art patents. When the patentee narrowed these claims and attempted to assert the original broader scope against an alleged infringer the Court applied the

file wrapper estoppel doctrine against the patentee stating that he had voluntarily acquiesced in the correctness of the rejection.

In the **Fifth Circuit** there is an explicit holding by the Court of Appeals as follows:

> " * * * we agree with the trial court's legal conclusion that the doctrine of file wrapper estoppel properly applies to all Patent Office surrenders, *not merely to those which are based on prior art* * * * " [Emphasis added]

The Laitram Corp. v. Deepsouth Packing Co., Inc., 443 F.2d 928; 172 USPQ 190 (Aff'g. 162 USPQ 14) (C.A. 5 1971).

In the **Sixth Circuit** there is a case involving an anti-anemia pharmacological product. *Parke Davis and Co. v. American Cyanamid*, 207 F.2d 571 (C.A. 6 1953). The patentees' original claims were rejected for failing "to define the product properly." They were amended three subsequent times and were rejected three subsequent times, the last rejection being based on the wording of a clause inserted by the patentee stating that a certain constituent of the product was "derivable by autolysis from mammalian liver tissue." The Patent Office rejected this proposed insertion too and insisted that "derivable" be changed to "derived" to conform to the original disclosure.* In response to this rejection the patentee did change "derivable" to "derived." The patentee sued an infringer and sought to stretch the coverage of these so-amended claims. He contended that they covered the competing product of the defendant whose corresponding constituent was synthetic and *not* made from animal sources. The lower Court had held on *summary judgment* proceedings that the patentee was estopped to deny the limiting language in the claims as allowed since it had been adopted to avoid the Patent Of-

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* Just as in the present case.

fice grounds of rejection. The Court of Appeals upheld the District Court on this point.

In the **Seventh Circuit** case of *Keating v. Stearnes Imperial Co.*, 347 F.2d 444; 146 USPQ 118 (C.A. 7 1965) the Court of Appeals upheld a summary judgment against the patentee which found the patent not infringed because of file wrapper estoppel. The patentee, during the course of the pendency of his application in the Patent Office had *voluntarily* restricted his claims to narrower language.

In the **Ninth Circuit** in *Moon v. Cabot*, 270 F.2d 539; 123 USPQ 60 (C.A. 9, 1959) cert. den. 361 U.S. 965, the Patent Office objected to the wording of four proposed claims as being inaccurate for not conforming to the specification.* The Examiner indicated that they would be allowed on change of wording to conform to the specification and the patentee acquiesced. Then the patentee sought to reassert the original scope of these narrowed claims against the alleged infringer, but the Court of Appeals struck down this attempt saying that he was estopped to enlarge them by resort to the doctrine of equivalents.

In the **Tenth Circuit** there is at least one recent case which applied the doctrine of file wrapper estoppel even though the patentee's restriction of his claims was *not* made in response to a rejection because of prior art, i.e., patents issued to *others*. *Norwood v. Ehrenreich Photo-Optical Industries, Inc., et al.*, 322 F.Supp. 898; 168 USPQ 72 (D.C. C.D. Cal. 1971). In that case, the Patent Office had rejected earlier broader claims because they were deemed to cover the same invention previously patented by the same patentee ("double patenting"). The patentee responded by cancelling these claims and substituting much more limited versions. After the Patent Office allowed these limited claims, the patentee sought to assert that they had a scope similar to the cancelled versions, but the Court found for the alleged infringer citing the *Exhibit Supply Co.* case, *supra*.

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* As in the present case.

c. A Supreme Court clarification of the bases metes and bounds of the file wrapper estoppel doctrine is highly desirable.

The split of authority in the Circuits as to the applicability of the doctrine of file wrapper estoppel makes for legal non-uniformity and uncertainty throughout the United States. This is an undesired and unhealthy state of affairs since businessmen cannot intelligently plan or assess the risk of patent infringement liability before marketing or using a new product or process. If the patent in question has not yet been adjudicated the businessman's study of its Patent Office file history does not yield definite answers as to the effect of a patentee's restriction of claims in response to an Examiner's objection or rejection. But even if the patent has already been adjudicated in one circuit, which has held file wrapper estoppel to be applicable so that the businessman's product does *not* infringe in one circuit, there is nothing to prevent another circuit with more stringent file wrapper estoppel rules from holding it to *be* an infringement there.

The possibility of forum-shopping is much more possible in patent cases than in most other types of litigation since acts of infringement may consist of making, using or selling (35 U.S.C. 271) the accused device. The patentee therefore usually has a choice of forums provided he meets appropriate venue requirements. Venue depends on the type of defendant, which party institutes the suit, and where the alleged infringer resides or has a regular place of business.* A prudent patentee, mindful of the fact that his infringement suit may result in a complete loss of all his patent rights in case of a holding of invalidity,** will be very care-

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* See the special patent venue provisions of 28 U.S.C. 1400(b), the declaratory judgment venue provisions of 28 U.S.C. 1391(c), and the special alien venue provisions of 28 U.S.C. 1391(d).

** *Blonder-Tongue Laboratories, Inc. v. Univ. of Illinois Foundation*, 402 U.S. 313; 169 USPQ 313 (1971).

ful to choose a forum such as the Third Circuit which severely restricts the file wrapper estoppel doctrine to prior art. A potential infringer will, conversely, seek a forum such as the Fifth Circuit where the doctrine is much more liberally applied. Such forum-shopping is against the public interest and should be decisively discouraged wherever possible, as this Court did in ruling that collateral estoppel should apply to an adjudication of a patent's invalidity. *Blonder-Tongue, supra.*

2. The Court of Appeals erred in applying the presumption of validity so rigorously in the light of the Supreme Court's pronouncement in *Graham v. John Deere* and the case law.

The Third Circuit Court of Appeals in its opinion [App. 20a] stated that the invalidity of a patent "must be demonstrated by clear and convincing proof citing, among other cases, *Moon v. Cabot Shops, Inc., infra.* This judicial construction is, of course, grounded upon 35 *U.S.C.* 282. It is a very strong presumption but considerable doubt has been cast upon it in the Supreme Court case of *Graham v. John Deere Co.* in which the Court stated at page 18:

> "We have observed a notorious difference between the standards applied by the Patent Office and by the Courts. While many reasons can be adduced to explain this discrepancy, one may well be the free-rein often exercised by Examiners in their use of the concept of 'invention.' In this connection we note that the Patent Office is confronted with a most difficult task. Almost 100,000 applications for patents are filed each year. Of these, about 50,000 are granted with a resultant backlog now running well over 200,000."

From this recent pronouncement, it would seem that the present validity of the "clear and convincing" standard is highly questionable.

Even if the Supreme Court itself had not cast a pall on the presumption, it has been settled law for many years that a presumption of validity is considerably weakened "to the extent that the Examiner has not considered the most relevant aspects of prior art relied on by the alleged infringer." *L. B. Smith v. Hughes*, 190 F.Supp. 787, 797 (E.D. Pa. 1961) Affirmed 296 F.2d 738; *Norvel v. McGraw Edison Co.*, 316 F.Supp. 198, 167 USPQ 47 (D.C.E.D. Wisc. 1970). In the present case, the Court of Appeals found [App. 23a] that the trial court had relied on five of the seven patents considered by the Patent Office, four of the additional patents not before the Patent Office, and the three literature references. Although the Court erroneously indicated [App. 24a] that the prior art did not show low-temperature burning of the insulation from wire scrap, it did not even mention, let alone consider, the scrap copper wire reclamation procedures of the American Smelting and Refining Co. mentioned in the trial court's Findings of Fact [App. 2a]. This finding acknowledges that there was, before the present invention, a commercial wire reclamation process including a second-stage after-burner chamber for burning insulation off of wire. The trial record clearly revealed that the primary combustion chamber was a low-temperature burning chamber since the amount of air to it was limited. Nor did the Court of Appeals correctly state the substance of the literature reference Exhibit D-24 [App. 9a] which is specifically intended for burning insulation off of electrical scrap metal items.

In view of the *Graham v. Deere* dictum and the omission by the Court of Appeals to consider adequately and understand properly the art cited by the petitioner, this Court is solicited to make a fresh inquiry as to the vitality and application of the rules and decisions concerning the presumptive validity of patents.

3. The Court of Appeals did not apply the proper test for determining the patentability of a combination of known process steps.

In the opinion of the Court of Appeals [App. 21a] there is a citation of *U.S. v. Adams*, 383 U.S. 39 (1966) to the effect that, for a combination of old elements or steps to be patentable they must not have been previously used together and must produce *unexpected* results, particularly where the prior art indicates that the procedure will be unproductive. The Court, citing *Anderson's Black Rock, supra*, recognized that the steps would have to be combined in an "unsuggested manner into a process that would achieve a substantially different function and result from the other processes of which the individual stages were a part" [App. 25a]. However, the Court did not analyze, as the trial court did, the prior art to show that the steps had *not* previously been used together. As a matter of fact, the prior art *did* show the steps used together but not in a portable apparatus. Nor did the Court show how the combination produced an unexpected result or a synergistic one. The Court totally ignored significant prior art not considered by the Patent Office such as the American Smelting and Refining Co. installation [App. 2a, Finding of Fact 6] and Exhibit D-24 [App. 9a, Finding of Fact 26(a)] which specifically recites a method for burning insulation off of electrical scrap. It includes a low temperature primary combustion chamber and a subsequent high-temperature after burner chamber. The only difference in the process is that the patentee brings his incinerator to the scrap rather than vice versa. But this idea is hardly novel—the 1916 Middaugh patent "[App. 8a, Finding of Fact 24(c)] shows a portable incinerator that can be placed over scrap lumber piles for burning them. Since all of the steps

were well known and most of them had been used together in scrap metal reclamation and functioned in the same way as those of the present patent, i.e., (1) low-temperature incomplete combustion was followed by (2) high temperature after-burner oxidizing of the products of incomplete combustion, the non-obvious test was not properly applied.

4. A patentee who consciously conceals certain facts and misrepresents others contrary to *35 U.S.C. 112* should have his patent invalidated even if such facts do not relate to utility, novelty or obviousness.

Petitioner proved during the trial that the patentee deliberately withheld from the Patent Office the fact that his invention *would not work* with common aluminum wire, the fact that even copper wire was oxidized and embrittled despite claims to the contrary in the patent specification, and that conventional scrap wire processes had done a satisfactory job [App. 26a]. Petitioner argued that these misrepresentations should therefore invalidate the patent under the provisions of 35 *U.S.C. 112*. The Court of Appeals did not deny that the proofs showed these misrepresentations but stated that:

> ". . . they were not material, in that they did not relate to the statutory conditions of patentability: novelty 35 U.S.C. 102; obviousness, 35 U.S.C. 103; or utility," 35 U.S.C. 101 . . ." [App. 26a]

and hence dismissed petitioner's argument. The Court did not cite a *single* case standing for this proposition. A patent is a covenant between the patentee and the U.S. Government by which, in return for a *complete* disclosure of the invention, the patentee is granted a limited monop-

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" Patentee's own admission that his invention would not work on aluminum wire certainly bears on *utility!* [App. 26a, n.22]

oly. As Judge Masterson held in *Monsanto Co. v. Rohm and Haas Co.*, 312 F. Supp. 778; 164 USPQ 556 (E.D.Pa. 1970); affirmed — F.2d — (C.A. 3, 1972) 165 USPQ 683; cert. den. 170 USPQ 199.

> ". . . The patent applicant should be held to the same standard of truthful disclosure to the Patent Office that Congress has required of the seller of securities to the public . . ."

There is no basis in law for the Court of Appeals' characterizing misrepresentations relating to 35 *U.S.C. 101, 102, 103* as being "material" and misrepresentations relating to 35 *U.S.C. 112* as being "immaterial." The Supreme Court should put to rest the idea of any such demarcation. If it does not, it may encourage patent applicants to risk misleading the Patent Office and the public in order to get a patent granted. The patent applicant might elect to run the risk since, even if his 35 *U.S.C. 112* misrepresentations of concealments were later detected, he would not suffer any possible penalty of invalidation by the application of the Court of Appeals' analysis.

5. Acts specifically held legal by this Court should not be used to justify the invocation of the exceptional penal provisions of 35 U.S.C. 284 relating to willful infringement.

"Willful infringement" is a penal provision of the patent statute to be invoked only in "exceptional circumstances." *Besly-Welles Corporation, et al. v. Balax, Inc.*, 291 F.2d 328; 160 USPQ 265 (E.D.Wisc. 1968); *Upjohn Company v. Italian Drugs Importing Co.*, 190 F. Supp. 361, 128 USPQ 236 (S.D.N.Y. 1961).

In the opinion of the Court of Appeals [App. 30a], the Court supported the finding by the district court of willful infringement by alluding to the fact that petitioner

sent blueprints of the respondent's incinerator abroad. When petitioner did these things it was doing what any U.S. citizen had the right to do.

Petitioner undoubtedly had the right, even in the U.S., to copy exactly the respondent's incinerator or publish its specification since the incinerator was in the public domain because it was *not patented. Sears, Roebuck & Co. v. Stiffel*, 376 U.S. 225. The incinerator was not patented in Belgium either and hence sending blueprints there was not a violation of foreign law which might be considered reprehensible conduct. Petitioner could have actually sent the complete incinerator to Belgium after having made it in the U.S. and no law would be broken, nor should any stigma attach thereto. *Deepsouth Packing Co., Inc. v. The Laitram Corporation*, — U.S. — (1972). Therefore there is insufficient legal basis to invoke the penal provisions of 35 U.S.C. 284 especially since petitioner had consulted well-known patent counsel before it had copies made of respondent's incinerator.

Patent counsel had advised that the incinerator and its main operating features were unpatentable, but if a patent did by chance issue it would be "invalid or . . . of very doubtful validity . . . unenforceable" [App. 3a] To avoid any trouble, however, petitoner took a license for two of those incinerators [App. 19a, Finding of Facts 11 and 12]. Later, petitioner refused to take a license for further incinerators, relying on the patent counsel's expert prognostication and advice. Patent counsel believed the incinerator system to be unpatentable and so did the trial court. These were certainly reasonable conclusions of reasonable men and petitioner was reasonable in relying on the pre-patent advice rather than seeking a later post-patent opinion on the same prior art facts.

This case is the *first* known one in which a court has required *two* opinions from counsel to a layman in order to avoid the imposition of treble damages. The case cited by the Court of Appeals in support of this proposition is *Maxon*

Pre-Mix Burner Co. v. Mid-Continent Metal Prods. Co., 270 F.Supp. 164 (N.D.Ill. 1967). But that case is not apposite; there the infringer did *not* even consult patent counsel *one* time. Furthermore, in *Maxon*, the defendant had *literally* infringed the patent claims; in the present case petitioner was found to infringe only by application of the doctrine of equivalents [App. 28a]. The Supreme Court should review the applicability of the statutory section 35 *U.S.C.* 284 in the light of the facts in this case and the authorities cited above.

G. Conclusion.

For the reasons set forth above, this petition should be granted.

Respectfully submitted,

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APPENDIX

IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF PENNSYLVANIA

Civil Action No. 38,166

TRIO PROCESS CORPORATION
and
FRANKLIN SMELTING AND REFINING COMPANY

v.

L. GOLDSTEIN'S SONS, INC.

OPINION

FINDINGS OF FACT AND CONCLUSIONS OF LAW

FULLAM, J. January 27, 1971.

This is a patent infringement and unfair competition action. The defendant contests the validity of the plaintiff's patent, and denies that it has infringed the plaintiff's patent. Pursuant to Fed. R. Civ. P. 42(b), the issues of liability for infringement and damages have been separated.

By way of background, the patent as issued is a process patent. However, as originally filed, the application contained both process and apparatus claims. The apparatus which was not covered by the patent as issued is comprised of a large conical furnace with a cylindrical afterburner section above the furnace. The furnace was designed to be used in commercial metal reclamation yards.

Upon review of the trial record, and consideration of the respective parties' proposed findings of fact and conclusions of law, the Court makes the following:

FINDINGS OF FACT

1. United States Patent No. 3,076,421 was issued on February 5, 1963 to Albert W. Spitz. Trio Process Corporation (hereinafter Trio) is now the rightful owner of the '421 patent.

2. Trio is a Pennsylvania corporation having its principal place of business at 437 N. Sterling Road, Elkins Park, Pennsylvania.

3. The Metal Bank of America, Inc. is a successor corporation to L. Goldstein's Sons, Inc., the named defendant, with its principal place of business at Knorr Street and Wissinoming Avenue, Philadelphia, Pennsylvania.

4. In October of 1957, the Franklin Smelting and Refining Company, of Philadelphia, Pennsylvania, engaged Mr. Albert W. Spitz as a consulting engineer. Mr. Spitz's first undertaking was to devise a method to improve Franklin's copper wire reclamation procedures.

5. At the time Mr. Spitz was engaged, wire reclamation through the medium of heat was primarily done by open burning or in fixed hearth furnaces.

6. During Mr. Spitz's research work, he viewed the copper reclamation procedures of the American Smelting and Refining Company of Perth Amboy, New Jersey. At American, a two-chamber refractory furnace was used in conjunction with an afterburner eight to fifteen feet down flue from the primary chambers.

7. The prototype of the apparatus currently used to carry out the plaintiff 's process was constructed between four to five months later. Franklin used the first workable furnace constructed by Mr. Spitz in its copper reclamation process in late 1958 or early 1959. The furnace was frustoconical in shape with a cylindrical afterburner section affixed to the lower section. The furnace was provided with an eye at the top to allow a crane to move the furnace about.

8. The defendant corporation engaged a consulting engineer in January of 1959 to improve its reclamation operations. At that time, the defendant knew of the Spitz

development and showed the Spitz furnace at Franklin to its consulting engineer. Although working concepts for two possible furnaces were developed by the consultant, neither was adopted by the defendant.

9. By July of 1959, the defendant was utilizing a chopping method to reclaim copper wire. A patent, No. 3,074,653, was issued to John Schorsch, vice-president of the defendant corporation, covering the apparatus used for this procedure.

10. In November of 1959, the defendant sought an opinion letter from a patent attorney relating to the patentability of the Spitz furnace. Mr. Schorsch provided the attorney with a diagram of the Spitz furnace. It was the attorney's opinion that the Spitz furnace was not patentable. Defendant did not seek an opinion of counsel as to the validity of the process patent after issuance.

11. By two written agreements of January 2, 1960, the defendant purchased a Spitz furnace and the license to use the furnace and the method for the duration of the life of the furnace, within a 30 mile radius of its principal place of business.

12. On May 12, 1960, the defendant purchased another Spitz furnace and acquired the license rights to use the second furnace and method, pursuant to the terms of the first license agreement.

13. In October of 1964, the defendant contracted with a metal fabricator for the construction of a copy of the Spitz furnaces which had been delivered to the defendant pursuant to purchase agreements with Trio.

14. The defendant acquired AMA Metal Corporation of Oceanside, New York, on February 1, 1965. At that time, AMA was a licensee of Trio and had purchased one furnace from Trio.

15. In March of 1965, the defendant ordered two more copies of the Spitz furnace, one of which was delivered to AMA. Thereafter the defendant contracted for the construction of six more furnaces to be built in essential conformity with the original furnaces delivered by Trio.

16. From 1960 to 1968, the defendant had secured clearances from the Department of Public Health of the City of Philadelphia to operate the furnances on its properties.

17. The prosecution of the '421 patent was initiated on October 29, 1958. The application contained five claims. On February 24, 1959, the examiner rejected apparatus claims 1, 3, 4 and 5 on the basis of prior art. Claim 2, a method claim, was rejected as an improper method claim and on the basis of prior art.

18. On August 25, 1959, claims 1 through 5 were withdrawn and claims 6 through 13 were added. On March 8, 1960, apparatus claims 6 through 9 were rejected on the basis of prior art. Method claims 10 through 13 were rejected as improper method claims because they relied on specific aspects of apparatus, and on the basis of prior art.

19. On September 8, 1960, claims 6 through 9 were amended, claims 10 through 13 were withdrawn, and claims 14 through 17 were added to replace claims 10 through 13. The examiner, on April 4, 1961, again rejected apparatus claims 6 through 9 due to prior art and on the basis that as amended they contained new matter. Method claims 14 through 17 were rejected as indefinite and misdescriptive. One basis for concluding claims 16 and 17 were misdescriptive was that they specified that the combustion chamber was superimposed over the scrap pile before ignition, whereas the original disclosure stated the scrap was to be ignited before superimposing the chamber over the scrap pile.

20. Amendments were filed October 2, 1961. However, on January 10, 1962, the amendments were found to be non-responsive to the examiner's rejection of April 4, 1961.

21. On January 15, 1962 claims 6 through 9, the apparatus claims, were withdrawn. An amendment was also made to claim 17. Further amendments were filed on March 16, 1962. Notice of allowance was mailed May 14, 1962, and the patent was issued February 5, 1963.

22. Patent '421 as issued contains claims 14 through 17 renumbered to be claims 1 through 4. At issue in this litigation are claims 1, 3 and 4. These claims are set out in the Appendix.

23. Of the seven patents cited by the examiner, the defendant relied upon the following at trial:

(a) The Morgan patent, Patent No. 1,082,644, was issued December 30, 1913. The inventor's purpose was to design a portable incinerator for the burning of tree stumps. The apparatus was comprised of a frusto-conical casing with an opening at the bottom to allow the burner to be placed over the stump, and having a conical top on the casing converging into a smoke stack. An opening and door were provided in the main body of the casing. A tube was also provided in the side of the casing to direct the air supply within the casing.

(b) The Lovelace patent, No. 266,850, issued October 31, 1882, related to the design of a portable charcoal kiln to be used in conjunction with a foundation constructed with a central fire chamber. Two passages were provided from the external side of the foundation through the foundation to the fire chamber with the opening at the exterior of the foundation equipped with a door and damper to control the amount of air reaching the fire chamber. The fire chamber was covered with a grate and solid door to prevent the fire from igniting the wood in the kiln. Flues were provided from the side of the fire chamber to the top of the foundation to allow the heat to reach the kiln area. Exit flues were provided from the top of the foundation downward and then outward to the exterior of the foundation to allow steam and smoke to be emitted. The hood which fit over the foundation was comprised of two steel hoods one-half inch apart. Ashes or other non-conductive material were to be used to prevent heat radiation and entry of air into the kiln. A door at the top of the hood was provided for placing wood into the kiln and a side door for taking the processed wood out. In the alternative, the hood could be merely placed over

the material and then removed after processing. The purposes of the patent were to prevent oxidation by allowing as little air as possible to enter the kiln area, and providing the necessary heat without direct contact of the wood with the fire source.

(c) The Breitweiser patent, No. 1,773,256, issued August 19, 1930, related to a device for deodorizing effluent gases of an incinerator. A cylindrical casing is to be fitted over an incinerator with the exit port of the incinerator coincident to the inlet port of the device. Adjacent to the inlet point of the device there is a burner adapted to direct a flame into the gases flowing up from the incinerator. An air intake port was provided to furnish air to the gases after they passed through the flames of the burner. The gases then moved up the cylinder through a grouping of baffles and out through an exit opening.

(d) The Cummings patent, No. 1,528,816, issued September 20, 1925, related to an incinerator. The purpose was to insure deodorization of the gaseous products of incinerators. A cylindrical container was provided with a side access hopper allowing refuse to be delivered to a container within the cylinder. Adjacent to the container a burner was specified for ignition of the refuse. The gases from the burning of the refuse then rose to a honeycombed partition which was preheated to an incandescent level by a burner adjacent to the partition, and the gases circulated through the honeycomb and out the exit port. The lower ignition burner was to be controlled so that the volume of by-product gases was such that they could be completely destroyed when passed through the upper partition.

(e) The Wilkins patent, No. 2,815,278, issued January 20, 1954, contained both method and apparatus claims for the reclamation of copper from copper scrap wire. The patentee's purpose was to avoid oxidation of the copper and discharge of smoke. Generally, the method involved the forming of a column-like pile of scrap wire over a bed of carbonaceous material, and igniting said carbonaceous base

and supplying air sufficient to generate a temperature above the melting point of copper. As a result thereof, hot gaseous combustion products, which are deoxidizing in relation to copper, moved upward through the wire scrap, and in conjunction with the heat of the carbonaceous bed caused destructive distillation of the organic wire covering without ignition of the by-products of the destructive distillation, said by-products moving upward through the scrap pile. The molten copper then filtered through the carbonaceous bed and out to a receptacle. Combustion air was regulated to insure a sufficient temperature at the ignition bed for burning of any remaining carbon residue fallout of the destructive distillation. The presence of carbon residue and the burning thereof provided a self-replenishing fuel source to continue distillation. As the scrap is melted, additional charging material is added. Claim (9) adds a secondary combustion chamber for the supplying of air and burning of the remaining by-products of the prior method.

24. The following were also relied upon by the defendant as appropriate prior art:

(a) The Edwards patent, No. 292,635, issued on January 29, 1884, related to a charcoal oven. Three separate pieces of apparatus were used in conjunction with each other. It had a conical oven with a conical door at the apex of the cone, and two rows of ports at the bottom of the cone at different heights parallel to the ground with damper controls on them. The lower access holes were to control the draft, and the upper access holes were to serve to evacuate smoke and gases during burning. A hoist mechanism was provided to raise the oven above the ground. A revolving template on a post was used to allow a workman to form a conical pile of wood. The purpose of the invention was to provide a portable metal oven that could be superimposed by the use of the hoist system over the conical pile of wood formed by use of the revolving template without need of a grate or foundation under the wood pile. The lower set of intake ports was used to furnish air in such amount as to

support slow combustion, and the upper set of ports allow smoke and gases to escape from the otherwise enclosed area.

(b) The Kurre patent, No. 245,179, issued on August 2, 1881, related to a stump burner composed of three or more cylindrical sections topped by a cone-shaped hood and a central smoke stack. The lower cylinder was placed over the stump, and the remaining members were then assembled on top of the lower cylinder. Access doors and controlled draft doors were provided in the lower cylinder.

(c) The Middaugh patent, No. 1,199,403 issued September 26, 1916, related to a refuse burner for particular application to the disposing of waste from sawmills. Two conical shells are attached to either side of supporting struts. The bottom of the conical shell has a grate with an intake air passage furnished to allow the inducing of air directly under the refuse. An opening is provided around the bottom of the outside shell to allow air to circulate up between the two shells and to be discharged through a hood attached to the shells. The circulation of air is to prevent the shell from overheating. An access door is located in the upper portion of the shell to allow refuse to be placed into the device.

(d) The Cassity patent, No. 1,126,388, issued on January 26, 1915, related to a portable stump burner. The burner consists of a casing of sheet metal in a frusto-conical shape with a damper inlet at the lower portion of the casing for controlling the draft. The lid or top of the casing is provided with an opening for the insertion of an air pipe to be used to direct air at stump roots after consumption of the stump itself. Said draft pipe is removable with a cover fitting over the lid when the air pipe is not used. Dirt was to be packed around the edges of the cone to preclude the entry of air.

25. The four additional patents relied on by the defendant do not show any new elements which were not already considered by the patent examiner.

26. Defendant also relies on the following three selections from the air pollution literature as prior art references:

(a) "Air Pollution Handbook," by Magill, Holden and Ackley (McGraw-Hill, 1956) at 13-19 relates the necessary elements of an incinerator to reclaim copper from copper scrap without the creation of a serious air pollution problem. The material suggests the use of a primary combustion chamber; a secondary chamber; and a final chamber for the introduction of additional combustion heat and air through air ports and fuel burners to insure complete combustion.

(b) "Air Pollution—United States Technical Conference on Air Pollution," edited by McCabe (McGraw-Hill, 1952) at 400-02 relates to the design of incinerators. The material suggests the use of a two-chamber system to insure full combustion of the effluent of the initial combustion chamber. Moreover, it is noted that the effectiveness of the secondary chamber is a function of the amount and velocity of combustion air supplied to the secondary chamber, and the heat in this chamber. If the temperature in the secondary chamber is low, gas or oil burners are suggested.

(c) A paper entitled, "Fuel-Fed Incinerator Research at New York University" found in "Proceedings of a Symposium on the Developments in Incinerator Research at New York University," published May 23, 1957, relates to improvement of apartment house incinerators in the City of New York by modification of existing single chamber incinerators so as to lessen the smoke and particle discharge. The approach indicated is to install a burner-blower combination upstream from the point of refuse ignition to facilitate the combustion of gaseous effluent and particles produced by the original and subsequent slow burning of the refuse charge. At a later point, referring to multi-chamber incinerators, it is pointed out that proper control of the volume of combustion air available in the primary chamber is critical to the prevention of smoke discharge. The use of burners in the secondary unit is recognized as

sometimes necessary to insure proper temperature ranges in the secondary or mixing chamber. In the event black smoke is discharged, it is recommended that primary combustion air be curtailed and secondary air increased.

27. The literature relied upon by the defendant, and not cited by the examiner, makes clear that multichamber incineration was known in the prior art to be an advantageous way to curtail smoke and particle discharge, prior to the time Mr. Spitz began his work. Specifically, it was known that smoke discharge is a function of two factors: the amount of combustion air available in the primary combustion chamber; and the capacity of the secondary chamber to handle the effluent moving upstream. The secondary or mixing chamber's efficiency depends on the air available and its temperature.

28. The Cummings patent '816, cited by the examiner, showed principles similar to those referred to in Finding 27 in the context of deodorizing gaseous products of refuse discharge. The literature cited by the defendant focuses on the importance of the above-mentioned factors in the context of air pollution control.

29. At the time Mr. Spitz conceived his idea, there was a need to improve the efficiency of copper reclamation procedures and to lessen the pollution discharge of the copper reclamation.

30. Plaintiff's patent met with limited commercial success.

31. The defendant uses its incinerators in the following way:

(a) a pile of scrap wire is formed

(b) the incinerator is placed on top of the pile

(c) the afterburner is ignited

(d) dirt is placed around the bottom of the incinerator

(e) a lighted torch is used to ignite the scrap by inserting the torch through each of the four doors of the incinerator

(f) after initial ignition, the four doors are closed

(g) the pile is left to burn for approximately 8 to 12 hours or longer depending on the material

(h) the afterburner is then shut off

(i) the incinerator is lifted off the pile.

32. The plaintiff's patent specifies that the pile of scrap wire be ignited prior to superimposing the incinerator over the pile of scrap wire.

33. Defendant's advertisements (P33, 34 & 35) are not false, deceptive or misleading.

34. The press release issued by the Union Corp. when it acquired Metal Bank of America was not false or misleading.

35. Defendant forwarded to a Brussels corporation a blueprint of the furnace used by the defendant, and the necessary information to utilize the furnace properly.

CONCLUSIONS OF LAW.

1. This Court has jurisdiction over the parties and subject matter.

2. Venue is proper in this judicial district.

3. Plaintiff is the rightful owner of United States Letters of Patent No. 3,076,421.

4. Claims 2, 3 and 4 of plaintiff's patent are invalid under 35 U.S.C. §103.

5. Defendant has infringed the plaintiff's method patent.

6. Defendant's infringement is willful.

7. Plaintiff has not proven a cause for unfair competition under Pennsylvania or federal law.

8. Defendant is not entitled to recover under 15 U. S. C. §2.

ORDER.

AND NOW, this 27th day of January, 1971, it is **ORDERED** that in Civil Action No. 38166 judgment is entered in favor of the defendant, L. Goldstein's Sons, Inc.

/s/ JOHN P. FULLAM, J.

APPENDIX.

Claim 1. The method of removing organic coverings from scrap insulated electrical wire without substantially melting or oxidizing the metal content thereof while yet obtaining substantially complete combustion of the organic coverings thereof, which method comprises introducing fuel to a loose random pile of such scrap wire, igniting said fuel and said scrap, admitting air to the so ignited pile of scrap at such limited rate and air-cooling the zone surrounding the so ignited scrap-pile at such rate that the combustion of the organic coverings in the scrap pile will be incomplete and generally limited to the extent necessary to volatilize such organic coverings without the complete combustion of a substantial portion thereof and that the temperature of the scrap pile is kept below the melting point of the metal content thereof, thereafter passing the resultant effluent of gaseous products of such incomplete combustion and of such volatized organic coverings and any solid particles entrained therein through a long refractory-lined flow-path commencing beyond the aforementioned air-cooled zone and introducing a sufficient amount of fuel and air into said flow-path near the upstream end thereof and burning such fuel to heat the refractory-lining of said flow-path and such effluent therein to a temperature necessary to effect a substantial combustion of the aforementioned effluent within said flow-path.

Claim 3. The method of removing organic coverings from random bales of scrap electric wire, in situ, on a loose scrap-pile thereof which comprises introducing fuel to such loose scrap-pile and igniting said fuel and said scrap-pile, superimposing upon such loose scrap pile, in situ, a bottomless pile-enclosing chamber and admitting air to the so ignited and enclosed scrap pile at such limited rate and air-cooling the zone of said ignited scrap and the resultant gaseous products within said chamber that substantially all of such organic coverings will be converted into gaseous

or gas-entrained materials, but with an incomplete combustion of a substantial portion of the so gasified and gas-entrained materials and that the temperature within said scrap-enclosing chamber will be below the melting point of the metal content of the electric wire, thereafter passing such effluent of the gaseous products from the scrap-pile and any solid matter entrained therein through a long refractory-lined flow-path beyond said chamber and introducing a sufficient amount of fuel and air into said flow-path near the upstream end thereof and burning such fuel within such flow-path to heat the refractory lining thereof and such effluent therewithin to a temperature necessary to effect a substantial combustion of such effluent within said flow-path.

Claim 4. The method of removing organic coverings from random bales of scrap electric wire, in situ, on a loose scrap-pile thereof, which comprises introducing fuel to such loose scrap-pile and igniting said fuel and said scrap-pile, superimposing upon such loose scrap pile, in situ, a bottomless pile-enclosing chamber and admitting air to the so ignited and enclosed scrap pile at such limited rate and air-cooling the zone of said ignited scrap and the resultant gaseous products within said chamber that substantially all of such organic coverings will be converted into gaseous or gas-entrained materials, but with an incomplete combustion of a substantial portion of the so gasified and gas-entrained materials and that the temperature within said scrap-enclosing chamber will be below the melting point of the metal content of the electric wire, thereafter passing such effluent of the gaseous products from the scrap-pile and any solid matter entrained therein through a long refractory-lined flow-path beyond said chamber and introducing a sufficient amount of fuel and air into said flow-path near the upstream end thereof and burning such fuel within such flow-path to heat the refractory lining thereof and such effluent therewithin to a temperature necessary to effect a substantial combustion of such effluent within

said flow-path, and thereafter passing the so resultant effluent through and in intimate contact with super heated refractory checkerwork just prior to its exit to the atmosphere to effect a substantial complete combustion thereof.

UNITED STATES COURT OF APPEALS
FOR THE THIRD CIRCUIT

Nos. 71-1295/6

TRIO PROCESS CORPORATION,
Appellant in No. 71-1295

v.

L. GOLDSTEIN'S SONS, INC.,
Appellant in No. 71-1296

APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

Argued March 24, 1972

Before SEITZ, *Chief Judge*, ADAMS and HUNTER, *Circuit Judges*

OPINION OF THE COURT

(Filed May 22, 1972)

ADAMS, *Circuit Judge*.

In this patent infringement case, we must first determine the validity of United States Patent No. 3,076,421, issued to Albert W. Spitz (Spitz) and owned by Trio Process Corp. (Trio), and then decide whether the district court's finding of willful infringement is correct.

The primary issue of validity is whether the process disclosed in the patent was obvious to a practitioner with ordinary skill in the appropriate art at the time the pro-

cess was developed. The infringement issue can be resolved by determining whether Trio is precluded by "file-wrapper estoppel" from asserting the doctrine of equivalents to show infringement.

THE PATENT

The patent which forms the subject matter of this case teaches a process of removing organic insulation from scrap wire. The method basically consists of the following steps:

1. Igniting a pile of scrap wire and organic insulation;

2. Superimposing a bottomless combustion chamber over the ignited pile;

3. Admitting air at a limited rate to the ignited pile and simultaneously air-cooling the outside of the combustion chamber so that the temperature of the ignited pile remains below the melting point of the wire;

4. Passing the products of the combustion—smoke and hydrocarbon gases—through an afterburner, into which is added fuel and air, so that the smoke and gases will be substantially oxidized.

The device disclosed in the patent by which the process may be practiced consists of a portable, sheet-metal conical combustion chamber upon which a refractory lined afterburner is superimposed.[1] Bunsen burners are suggested for introducing air and fuel into the afterburner chamber. The afterburner is supported by a frame. The frame also provides a point for attachment to a crane so that the furnace may be lifted, carried to the site of the scrap wire, and then lowered over such wire.

FACTUAL BACKGROUND

For the past several decades, there has been an increasing demand for non-ferrous metals, including cop-

1. To a layman, the furnace resembles a huge, inverted funnel. An illustration of Spitz's furnace is reproduced in the Appendix to this opinion.

per, for the electrical and other industries. To meet this demand, newly-mined metals are supplemented with metals reclaimed from scrap sources. Before scrap wire can be reclaimed, however, it is necessary to remove the insulation covering such wire.

Prior to the development of the method set forth in the Spitz patent, two procedures were utilized to remove insulation from scrap wire. One such method was to burn the wire in an open field. This procedure was inefficient and uneconomical as it required that the wire be raked back and forth to achieve proper burning, and did not provide satisfactory control over the oxidation and melting of the wire.[2] It also contributed to air pollution by releasing smoke and other gases into the atmosphere. The other process involved the rapid burning of scrap wire at high temperatures in forced draft, stationary furnaces. These fixed furnaces were expensive to build and difficult to use because the wire had to be prepared for burning and then transported to the furnaces. Moreover, the reclaimed metal would have to be removed from the furnace before it could become oxidized or melted. Both methods required substantial manpower for their effective utilization.

In late 1957, Spitz undertook an assignment from Franklin Smelting & Refining Company to develop an effective method of removing insulation from wire. Spitz investigated the procedures currently in use, devised a fixed furnace that could be charged from the top and unloaded from the bottom, and finally developed a concept converse to that previously employed, namely, the burning of the insulation in a portable furnace at a low temperature to be controlled by limiting the availability of air. Spitz's development had several advantages over the prior procedures: It reduced materials handling costs, it diminished air pollution, and it efficiently produced No. 1 grade copper scrap inexpensively by a meth-

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2. It is important to control oxidation because excess oxidation can materially affect the physical properties of the metal.

od which could be operated by relatively untrained personnel.

Spitz applied for a patent in October of 1958. The original application contained both apparatus and method claims. All of the claims were rejected by the examiner on the basis of prior art.[3] In 1959, the application was amended, but the new claims were also rejected.[4] The apparatus claims were amended in 1960, and new method claims were added to the application. Once more, the apparatus claims were disallowed on the basis of prior art, and the method claims were rejected as being misdescriptive[5] in that they provided for superimposition of the furnace prior to ignition of the scrap, whereas the patent disclosure specified ignition before the furnace was lowered into place. After further amendment and abandonment of the apparatus claims, the patent containing method claims issued on February 5, 1963.

Early in 1959, L. Goldstein's Sons, Inc. (Goldstein) became aware of the Spitz method and tried to emulate it, probably because Goldstein found the other two methods of processing scrap wire, described at _____, *supra*, unsatisfactory. Goldstein hired first one, then another engineer to attempt to duplicate the Spitz process, but although these engineers observed the Spitz furnace in operation, they were unable to devise a similar procedure.

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3. Prior art has been defined as follows:
"The existing state of knowledge in a particular art at the time an invention is made. It includes the issued patents * * *, publications, and all other knowledge deemed to be common thereto such as trade skills, trade practices, and the like." A. SMITH, PATENT LAW, CASES, COMMENTS AND MATERIALS 2 (1964).

4. The basis of the rejection of the new claims was that the apparatus was obvious in view of the prior art, and that the method claims were improper in that they relied on specific aspects of the apparatus and were disclosed in the prior art.

5. A claim is considered misdescriptive when it is not literally supported by the language of the specification or disclosure contained in the patent.

One of the engineers recommended a wire-chopping process which was eventually adopted for the reclamation of aluminum wire.[6] In November, 1959, Goldstein sought the opinion of a patent attorney as to the patentability of the Spitz furnace. The attorney advised that the furnace was not patentable. Goldstein did not seek an opinion as to the validity of the patent after issuance in 1963.

In 1960, Goldstein obtained licenses from Trio to use Spitz's method to process scrap wire.[7] Trio applied for and obtained on Goldstein's behalf appropriate permits from the City of Philadelphia. Spitz subsequently approached Goldstein in late 1964 and early 1965 to determine if it had any interest in additional furnaces. Goldstein stated that it had no interest, ostensibly because there was no room at its plant for the installation of additional furnaces. In actuality, Goldstein had engaged a metal fabricator to copy the Spitz furnace. Several of these copies were installed in Goldstein's Philadelphia facility,[8] and one was sent to AMA Metal Corporation, which had been acquired by Goldstein. Spitz endeavored to obtain clarification of Goldstein's position, and when an unsatisfactory answer was received, Trio charged Goldstein with patent infringement. Although Trio offered licenses for the additional furnances installed by Goldstein, the offer was refused and Goldstein terminated the license agreement.

In May, 1969, Trio filed suit against Goldstein for willful patent infringement, contributory infringement, and

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6. Goldstein's research continued through 1965, but apparently was never successful.

7. Licenses were also obtained by Franklin Smelting in Philadelphia, AMA Metal Company in New York, Minkin Metal Company in Michigan, Luria Brothers, Inc. in Pennsylvania, and Phelps Dodge in Arizona.

8. Applications for permits filed by Goldstein with the air pollution control section of the Philadelphia Department of Health specifically recite that each furnace to be installed by Goldstein is identical to an incinerator which was previously licensed by the Department of Health. The previously licensed incinerator was in fact a furnace provided by Trio.

unfair competition. Goldstein's answer denied infringement and asserted as an affirmative defense that the patent was invalid under 35 U.S.C. §§101, 102, 103 and 112. After a trial without a jury, the patent was held to have been willfully infringed, but invalid as obvious under 35 U.S.C. §103. The district court did not rule on the issue whether the patent was invalid under 35 U.S.C. §112. Trio appealed from the holding of invalidity and Goldstein cross-appealed on the issue of infringement.

VALIDITY OF THE PATENT

We begin this discussion with the pole star proposition that a patent is presumed to be valid and that the burden of proof is on the party alleging invalidity.

Congress provided in 35 U.S.C. §282 (1970), that: "A patent shall be presumed valid. * * * The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting it." And this Court has recognized that " * * * the burden of proving invalidity in the face of the presumption is a heavy one." Schmidinger v. Welsh, 383 F.2d 455, 462 n. 10 (3d Cir. 1967); *cert denied*, 390 U.S. 946 (1968). Indeed, invalidity must be demonstrated by clear and convincing proof. Ever-Wear Inc., v. Weiboldt Stores, Inc., 427 F.2d 373 (7th Cir. 1970); General Foods Corp. v. Perk Foods Co., 419 F.2d 944 (7th Cir. 1969), *cert. denied*, 397 U.S. 1038 (1970); Moon v. Cabot Shops, Inc., 270 F.2d 539 (9th Cir. 1959), *cert. denied*, 361 U.S. 965 (1960).

Because of the special public interest surrounding the issue of patent validity,[9] we have carefully evaluated the record and the district court's findings and conclusions with the above stated precepts in mind.

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9. Sinclair & Carrol Co. v. Interchemical Corp., 325 U.S. 327, 330 (1945); Royal Typewriter Co. v. Remington Rand, Inc., 168 F.2d 691, (2d Cir.), *cert. denied*, 335 U.S. 825 (1948); *see generally*, Note, *In Rem Validity—A Two-Sided Coin*, 59 GEO. L. J. 73, 80-81 (1970).

A. Obviousness

As stated above, the district court held that the patent was invalid on the ground that the invention was "obvious." Section 103 provides, in pertinent part: "A patent may not be obtained * * * if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. * * *"

Although Section 103 was enacted in 1952, it was not until 1966 that the Supreme Court definitively construed it in a trilogy of cases. Graham v. John Deere Co., 383 U.S. 1 (1966); Calmar & Colgate-Palmolive Co. v. Cook Chemical Co., *id.*; United States v. Adams, 383 U.S. 39 (1966). In *Graham*, the Supreme Court set forth the primary tests and secondary criteria for determining obviousness:

> "[T]he scope and content of the prior art; * * * differences between the prior art and the claims at issue; * * * the level of ordinary skill in the prior art. * * * Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." 383 U. S. at 14.[10]

The *Adams* case illustrates that where all the elements of an invention were known in the prior art but not utilized together, if the combination of the elements produced unexpected results different from the prior art, an invention may be patentable, particularly where the prior art indicates that the procedure utilized by the patent will be unproductive. 383 U. S. at 50-51; *accord* D. DUNNER, J.

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10. With regard to the primary tests, the Supreme Court has "admonished that 'strict observance' of those requirements is necessary." Anderson's Black Rock, Inc. v. Pavement Salvage Company, Inc., 396 U. S. 57 (1969).

GAMBRELL, & I. KAYTON, PATENT LAW PERSPECTIVES, CURRENT SERVICE, at A.5 (1966-67 Annual Review).

Trio maintained that because the district court did not specifically make the three primary findings referred to in *Graham*, reversal is required. But *Graham* and *Anderson's Black Rock* do not require that the three primary findings be made, but rather, only that the three primary tests be considered in the findings made by the district court. *See* Frantz Mfg. Co. v. Phoenix Mfg. Co., ____ F. 2d ____, ____ (7th Cir. 1972). Here, the trial judge's findings indicate that the scope of the prior art includes the reclamation of scrap wire, the manufacture of charcoal, the control of air pollution, and the incineration of tree stumps and sawdust. The content of the prior art was found to include portable furnaces, fixed furnaces, conical furnaces, and afterburners. The analysis of the prior art performed by the district court clearly highlights the differences between the claims at issue and the prior art as well as the similarities.

Although it would have been preferable for the trial judge to have set forth his findings with regard to the ordinary level of skill in the pertinent art with greater specificity, the findings actually made indicate that an ordinary person skilled in the art would be aware of the use of fixed furnaces operated at high temperatures to process scrap wire, the use of portable furnaces operated at low temperatures with limited air to produce charcoal, and the use of afterburners to cleanse the effluent gases. Furthermore, the district court made specific findings with respect to the needs of the industry and the commercial success of the invention. Accordingly, we hold that the district court adequately complied with the requirements of *Graham*. We have examined the record with respect to the findings of the district court discussed above, and find substantial evidence supporting them.[11]

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11. Trio has assigned as error the admission into evidence of the opinion testimony Dr. Edward Adler on the ground that he was not qualified under the rule of Arnold v. Loose, 352 F.2d 959 (3d

The ultimate legal conclusion of the district judge that the patent was invalid under Section 103 carries with it the necessary implication that the differences between the invention *sub judice* and the prior art are such that the subject matter as a whole would have been obvious to a person having ordinary skill in the pertinent art. It is here that we believe the district court erred.

When the patent examiner approved the Spitz patent, he cited seven prior patents he considered to be in the prior art. These patents disclosed, *inter alia*, an apparatus and method for reclaiming copper wire,[12] an afterburner to deodorize effluent gases,[13] an apparatus for the odorless burning of refuse,[14] a portable conical incinerator for burning tree stumps,[15] and a portable charcoal kiln which disclosed the concept of limited access of air.[16] Despite these references, the examiner concluded that the invention was unobvious, and such conclusion is presumptively correct.

To rebut this conclusion, Goldstein cited eight additional patents and three literature references. In holding the patent invalid, the district court relied on five of the patents that were before the examiner (discussed *supra*), four of the patents cited by Goldstein,[17] and the three

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Cir. 1965), to testify as an expert. However, Trio has not indicated in what manner such testimony prejudiced it. In any event, even excluding such testimony, the evidence in the record is sufficient to support the findings of the trial judge. Therefore, the error, if any, was harmless under Rule 61, Fed. R. Civ. P.

12. Wilkins Patent No. 2,815,278, teaching the use of a high temperature furnace with an afterburner.

13. Breitweiser Patent No. 1,773,256.

14. Cummings Patent No. 1,528,816.

15. Morgan Patent No. 1,082,644.

16. Lovelace Patent No. 266,850.

17. Edwards Patent No. 292,635 (conical charcoal oven; slow combustion); Kurre Patent No. 245,179 (stump burner); Middaugh Patent No. 1,199,403 (sawdust burner designed for rapid burning utilizing air-cooling to prevent overheating); Cassity Patent No. 1,126,388 (stump burner).

literature references.[18] A careful reading of the patents and literature reference cited by Goldstein indicates that they are merely cumulative to the references before the examiner. As such, they add no new material from which the district court could conclude that had the examiner read them, he would have held that the invention was unpatentable for obviousness. None of the references cited by the district court, individually or taken as a whole, indicate that organic insulation can be burned in a commercially feasible manner from scrap wire at low temperature without oxidizing or melting the wire.[18a] And even when all the references are viewed in conjunction with all the testimony taken at the trial, the evidence still falls short of "clear and convincing" proof that the method disclosed by the patent would have been obvious to a person with ordinary skill in the relevant art at the time Spitz developed his process. This is particularly so where, as here, the prior

18. Two of the literature references concern the use of afterburners to reduce air pollution; the third refers to refuse burning in apartment house incinerators and teaches both the use of an afterburner and the control of air in the combustion chamber to reduce pollution.

18a. It could be argued that it would be obvious to a person with ordinary skill in the art of wire reclamation to burn the insulation from wire at a temperature lower than the melting point of the wire, and that once this solution were arrived at, the method would be obvious in view of the prior art. Although this argument has superficial appeal, it is not supported by the facts of this case. Indeed, Goldstein, after being apprised of Spitz's concept, was still unable to reduce it to practice, prior to the issuance of the patent, without first obtaining instruction from Trio.

In any event, invention might lie in the realization of the exact problem to be solved. When the identification of the problem is not obvious, the invention can be patentable, even though the solution to the problem would then be obvious. Eibel Process Co. v. Minnesota & Ontario Paper Co., 261 U.S. 45 (1923). *But cf.* Graham v. John Deere Co., *supra*, 383 U.S. at 25. The proper test is whether the process as a whole would have been obvious to one of ordinary skill in the art, not whether it would be "obvious to try" a certain solution to the problem at hand. In re Dien, 371 F.2d 886 (C.C.P.A. 1967).

art indicates that high-temperature burning, rather than the low-temperatures employed by Spitz, is a more advantageous means of accomplishing the intended result. United States v. Adams, *supra*.

Goldstein argues, however, that the method patented by Spitz was obvious at the time the invention was made because each of the steps described in the Spitz claims was well known in the prior art. However, the essence of the Spitz invention did not lie in the individual steps, but rather, consisted of combining the steps in an unsuggested manner into a process that would achieve a substantially different function and result from the other processes of which the individual stages were a part.[18b] Where such occurs, the invention of a process may be patentable despite the fact that the individual phases were known in the art. *See* Shaw v. E.G. & A.C. Whiting Co., 417 F.2d 1097 (2d Cir. 1969); *cf.* Anderson's Black Rock Inc. v. Pavement Salvage Co., *supra*. *See generally*, D. DUNNER, J. GAMBRELL, I. KAYTON, *supra*, at Dev. A. 1-3 to -7 (1970). Developments.[19] It is the subject matter as a whole which must be con-

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18b. The functions performed by the devices in the prior art include the manufacture of charcoal, essentially a distillation process, and the burning of refuse, such as sawdust and tree stumps, a combustion process in which there is no attempt to preserve any sort of unoxidized by-product. In contrast, the function of the Spitz method is to burn insulation while preserving intact as the primary product No. 1 grade scrap wire. And it follows that here, the result is different in that the end product, scrap wire, is preserved in its original physical and chemical state, whereas the other devices produced products in which the physical or chemical state of the subject matter was substantially altered.

Examination of the two methods of producing scrap wire known in the prior art shows a facial similarity in function and result. But closer analysis demonstrates that the result of the Spitz process is not the mere production of scrap wire, but the production of such wire in a more economical manner, in that operating and material handling costs are reduced by resort to this method.

19. These citations all refer to combination apparatus patents, but the principles apply equally well to a multi-step process claim.

sidered in determining obviousness. In re Wiggins, 397 F.2d 356 (C.C.P.A. 1968).[20]

B. Specific disclosure

Although Goldstein asserted in its answer that the patent was invalid for failure to comply with 35 U.S.C. §112,[21] the district court did not decide this issue. Here, Goldstein urges that the holding of invalidity may be affirmed on this ground alone. In support of its argument, Goldstein contends that Spitz did not disclose certain shortcomings of his invention, Spitz fraudulently misrepresented both the shortcomings of the prior art and the result reached by the use of his invention, the patent fails to teach the necessity to observe the presence or absence of smoke, the patent does not describe any specific temperature ranges, and that the patent does not set forth the best mode of operation.

With regard to the allegations of omissions and misrepresentations, we hold that, on the facts of this case, such were not material, in that they did not relate to the statutory conditions of patentability: novelty, 35 U.S.C. §102; obviousness, 35 U.S.C. §103; or utility, 35 U.S.C. §101.[22] In this respect, Monsanto Co. v. Rohm & Haas Co.,

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20. The *Wiggins* opinion was written by Justice Clark, who authored Graham v. John Deere Co., *supra*.

21. Section 112 provides, *inter alia*:

"The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person *skilled in the art* to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention." (emphasis added)

22. Arguably, the allegation regarding the inability of the invention to cope with metal-sheathed wire or aluminum wire bears on utility, but when the misrepresentations are measured against the appropriate standards, it becomes obvious that even if fuller disclosure had been made, Spitz's process still would have been patentable.

____ F.2d ____ (3d Cir. 1972), is distinguishable because there the misrepresentations directly related to anticipation (novelty), obviousness, and utility, and the patent might not have issued had full disclosure been made.

The other Section 112 arguments relate to the lack of disclosure or vagueness of the operating parameters of the process. However, as distinguished from Section 103, dealing with obviousness, Section 112 refers to persons skilled in the art, and the disclosure must be evaluated with respect to such persons. Patent specifications need not be so detailed as "production specifications". In re Gay, 309 F.2d 768 (C.C.P.A. 1962).[23] Regarding the allegations that the best mode of operation was not disclosed, the statute as interpreted by the courts requires only that the best mode of operation known to the inventor at the time the application was filed be set forth. *Id.* The examiner determined that the disclosure of the patent was adequate, and a review of the record as a whole indicates that the evidence falls short of "clear and convincing" proof that the specification fails to teach a person skilled in the art how to operate the process.[24]

C. Late claiming and Misuse

In its brief to this court, Goldstein urges that the patent should be held invalid because of late claiming under 35 U.S.C. §132, and unenforceable because Trio misused the patent in a variety of respects. However, late claiming and

23. *See also* Bennett v. Halahan, Aronson & Lyon, 285 F.2d 807 (C.C.P.A. 1961).

24. The temperature of the burning pile of scrap wire is limited by the melting point of the metal, which would be known to a person skilled in the art. The patent also states that the gases emitted from the afterburner "are virtually colorless," and a person skilled in the art would be able to determine the proper temperature for afterburning easily by observing the presence or absence of smoke. Although the length of the afterburner is not specified, the patent drawings indicate that it is to be approximately equal to the height of the cone. In any event, such is not a critical part of the invention.

misuse are affirmative defenses which must be pleaded and proved. 35 U.S.C. §282 (1970). Because Goldstein's answer to the complaint did not raise these issues, we hold these defenses to have been waived under Rule 8(c), Fed. R. Civ. P., and need not consider them further.

WILLFUL INFRINGEMENT OF THE PATENT

Goldstein contends that the district court's conclusion of willful infringement is erroneous as a matter of law. The evidence disclosed that the only deviation in Goldstein's process from the method described in the patent was that Goldstein ignited the pile of wire prior to superimposing the furnance, whereas the patent stipulates the reverse order of these steps. Trio asserts that it is immaterial whether the pile is ignited before or after superimposition of the furnace, and that the conclusion of the district court is therefore correct under the doctrine of equivalents.

The Supreme Court explained the doctrine of equivalents and the conditions for its invocation in Graver Tank & Mfg. Co. v. Linde Air Products Co.:

> "The essence of the doctrine is that one may not practice a fraud on the patent. * * * 'To temper unsparing logic and prevent an infringer from stealing the benefit of an invention' a patentee may invoke this doctrine to proceed against the producer of a device 'if it performs substantially the same function in substantially the same way to obtain the same result.'" 339 U.S. 605, 608 (1950).

Here, by reversing the order of the steps of the process, there is produced "substantially the same function" (ignition of the insulation in the pile of scrap wire in preparation for burning) "in substantially the same way" (burning the insulation at low temperature) "to obtain the same results" (Number 1 grade scrap copper wire). Unless Trio is barred from asserting the doctrine of equivalents because of

"file-wrapper estoppel",[25] the conclusion that the patent was infringed must be affirmed.

The doctrine of file-wrapper estoppel provides that where a patentee abandons or redrafts a claim more narrowly to avoid rejection on the basis of prior art, then the substance of the claim as originally drafted which was thereby excluded cannot be recaptured by resort to the doctrine of equivalents. Exhibit Supply Co. v. Ace Patents Corp., 315 U.S. 126 (1942). Graham v. John Deere Co., 383 U.S. 1, 33 (1966); Schmidinger v. Welsh, 383 F.2d 455 (3d Cir. 1967), *cert. denied*, 390 U.S. 946 (1968); Chemical Construction Corp. v. Jones & Laughlin Steel Corp., 311 F.2d 367 (3d Cir. 1962).

The doctrine is based on the theory that the prior art is either in the public domain or already patented, so that the patentee may not claim it as part of his invention. By redrafting or abandoning a claim in the face of a prior art rejection, the patentee is conceding that he has not invented what he thereby disclaims, and therefore will not be heard to assert, at a later date, what he disclaimed as his invention. Accordingly, for "file-wrapper estoppel" to become operable, it is necessary, at the least, that a claim have been narrowed to avoid the prior art. Bishman Mfg. Co. v. Stewart-Warner Corp., 380 F.2d 336 (7th Cir.), *cert. denied*, 389 U.S. 897 (1967).

Here, the claims were redrafted, not because they trespassed upon the prior art, but because they were considered misdescriptive in view of the specification of the patent. The rejection here was a technical matter based on the Rules of Practice of the Patent Office, and had nothing to

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25. The file wrapper is "[t]he Patent Office file consisting of the original application, Office Actions, amendments and other written matter pertaining to the filing and prosecution of the application, and the issuance of the patent thereon. The documents are those actually exchanged between the applicant and the Patent Office. The file wrapper provides the written history of the application in the Patent Office. . . ." A. SMITH, *supra*, at 2.

do with the question whether the matter rejected was patentable. In such a situation, it would not be equitable to deprive a patentee of the full fruits of his invention because of a formalistic rule of the patent office. *See* Peterson Filters & Engineering Co. v. Eimco Corp., 155 U.S.P.Q. 89 (D. Utah, 1967), *aff'd* 406 F.2d 431, 438 (10th Cir. 1968).

For these reasons, we hold that, on the basis of the record developed below, the district court's conclusion of law that the patent had been infringed was not incorrect.

Goldstein next asserts that even if it were held to be an infringer, such infringement was not willful because it sought the advice of patent counsel as to the patentability of Spitz's invention. However, the opinion of counsel was not sought after the patent issued, even though more than a year elapsed after issuance before Goldstein began to infringe. This alone is enough to support a conclusion of willfulness, Maxon Premix Burner Co. v. Mid-Continent Metal Prods. Co., 270 F. Supp. 164 (N.D. Ill. 1967), and when viewed in conjunction with the totality of Goldstein's actions, including sending blueprints and operating instructions to a foreign company, we cannot say that the trial court's conclusion in this regard was erroneous.

CONCLUSION

The judgment of the district court with regard to the validity of the patent will be reversed, the judgment with regard to willful infringement will be affirmed, and the cause will be remanded for further proceedings consistent with this opinion. Costs taxed in favor of Plaintiff, Trio Process Corporation, in both appeals.

Arlin M. Adams

ARLIN M. ADAMS,
Circuit Judge

UNITED STATES COURT OF APPEALS
FOR THE THIRD CIRCUIT

Nos. 71-1295 and 71-1296

TRIO PROCESS CORPORATION
Appellant in No. 71-1295

v.

L. GOLDSTEIN'S SONS, INC.
Appellant in No. 71-1296

SUR PETITION FOR REHEARING

Present *Chief Judge* SEITZ, VAN DUSEN, ALDISERT, ADAMS, GIBBONS, ROSENN, ROSEN and HUNTER, *Circuit Judges*

The petition for rehearing filed by L. GOLDSTEIN'S SONS, INC. in the above entitled case having been submitted to the judges who participated in the decision of this court and to all the other available circuit judges of the circuit in regular active service, and no judge who concurred in the decision having asked for rehearing, and a majority of the circuit judges of the circuit in regular active service not having voted for rehearing by the court in banc, the petition for rehearing is denied. The petition for rehearing relies on the case of Deepsouth Packing Company v. Laitram Corp., ____ U.S. ____ (1972), the opinion in which was rendered after the opinion in this case.

Deepsouth Packing Company is not inconsistent because it deals with infringement and not intent which is an element of willfulness.

By the Court.

Dated: July 5, 1972 .....

Judge